to the parts just at the anterior cul-de-sac. By diagrams he illustrated the method of operating, and claimed for it, when properly done, the greatest success. He did not pretend to institute a comparison between this and the perineal operation for the same trouble; but he had been driven to work out this plan in consequence of having often failed with the other. He only wished to add another resource to our means of curing such a disgusting infirmity, for we now had three methods: 1st, amputation; 2d, the perineal operation; 3d, the narrowing of the vagina, as advocated by him.

Dr. S. said that no one method of operating could be applicable under all circumstances to all cases. If there was a lacerated perineum, it was proper to restore it. If there was elongation of the infra-vaginal portion of the cervix, then the proper operation was amputation of the cervix, and this was probably all that was necessary in such cases. In the majority of cases of procidentia—in all those where a vagino-cystocele formed the first stage of descent—he was satisfied that the operation he had described, viz., that of narrowing the vagina by forming a longitudinal fold of its tissue on the anterior surface, reaching from the neck of the bladder to the neck of the womb, would be one of the safest, simplest, and best.—*Lancet*, Dec. 16, 1865.

HYGIENE.

41. *Application of Ozone to Sanitary Purposes.*—Dr. John Day describes (*Lancet*, February 3, 1866) the following simple and inexpensive method of generating ozone and of applying it to sanitary purposes:—

"Schönbein found that a little pure ether put into a bottle filled with oxygen or atmospheric air, and exposed to diffused light, the bottle being occasionally shaken, had partially changed its nature after a lapse of four months. Although producing no action on litmus paper, it discharged the colour of a solution of indigo, converted phosphorus when immersed in it into phosphorous acid, eliminated iodine from iodide of potassium, &c.; thus showing that it had acquired many of the properties of ozone. This discovery led to a mode of forming ozone by moistening the interior of a bell-glass receiver, or a large-mouthed bottle, with ether, and plunging into it a glass rod previously heated in the flame of a spirit lamp. On experimenting, some few weeks since, with ozone formed in this manner, I was surprised to find that, at the expiration of ten days, the bottle I had used, although open and freely exposed to the air, was still highly ozonized. I then ozonized a large glass vessel by the same process, and in the course of a few minutes thoroughly rubbed the interior with a towel, and found that, although the towel had become ozonized, the glass vessel still retained its power of liberating iodine from iodide of potassium, of decolorizing sulphate of indigo, of destroying sulphuretted hydrogen, &c. These properties were retained by the glass vessel and the towel for several days.

"Viewing ozone as oxygen in a dynamical condition, its increased activity giving it the power of rapidly converting the products of animal and vegetable decomposition into innocuous compounds, I began to test the power of this chemical ozone in a privy, the atmosphere of which was highly charged with sulphuretted hydrogen and probably other deleterious gases. Before commencing operations, I placed a vessel containing a weak solution of permanganate of potash on the seat, the lid being raised. In an hour the colour was perfectly destroyed. I then placed large glass jars, which had been ozonized by means of ether and a hot glass rod, in several parts of the privy; and by this, and other methods about to be described, I have kept the atmosphere so pure that a solution of permanganate of potash of the same strength as that first used will retain its colour for several days. On finding that cloths could be ozonized by merely rubbing them over an ozonized surface, I began to suspect that heat was not absolutely necessary, and on pouring a small quantity of ether into a wide-mouthed bottle, it immediately afforded ozonic reaction, which continued active for a considerable time. I have since found that sheets, blankets, beds, clothing, bandages, lint, carded cotton, paper, and many other materials may be ozonized by simply pouring a small quantity of *a certain kind of ether* over them. Unfortunately I am not able to describe what that particular kind of ether is, but believe it to be very old ether which has absorbed a good deal of oxygen, that process having been favoured by exposure to light. Out of upwards of thirty samples of ether which I have examined, I have only found one to answer the purpose thoroughly, and this I know was imported into the colony about eight years since. Of the other samples three or four answered tolerably well, and many gave no ozonic reaction at all.

"It is well known that oil of turpentine has the property of generating ozone. How it does so has not been satisfactorily explained. Some chemists consider that the oxygen of the atmosphere is converted into ozone by contact with the vapour of the turpentine; but this, like everything connected with ozone, seems to be veiled in mystery. I have found that many substances, particularly those which are known as disinfectants, will, under certain conditions, generate ozone. I have succeeded with the vapour of cajeput oil, carbolic acid, creasote, pyroligneous acid, kerosene, naphtha, coal-tar, and chloroform, the reaction from chloroform being very feeble.

"The question naturally occurs, Is it really ozone—active oxygen—that is generated by my simple process? I believe it for the following reasons: It rapidly destroys sulphuretted hydrogen; it converts sulphite of lead into sulphate; it liberates iodine from iodide of potassium; it possesses powerful bleaching properties, and quickly decolorizes a solution of sulphate of indigo; it oxidizes iron and silver when they are slightly moistened; it coagulates albumen and casein, altering their colour, and giving to them a greenish tinge; and it induces intense headache and sore-throat when it is breathed for any length of time.

"The normal amount of ozone in the atmosphere has not yet been determined. It must, however, be very small. It has been given, I think, by Dr. Bérigny, of Versailles, as one part in ten thousand. It is known to be more plentiful in the open country than within the confines of towns and villages, and it is also known to be almost entirely absent from inhabited houses.

"Now, it appears to me quite possible that the sanitary condition of hospitals, factories, schools, and indeed of all establishments in which the atmosphere is liable to become vitiated, may be greatly improved by the occasional presence of artificially generated ozone."

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42. *Deodorization and Disinfection.*—The Hastings Prize Essay for 1865, on this subject, by Dr. THOS. HERBERT BAKER, is published in the number of the *British Medical Journal* for January 6, 1866. The following is a summary of the author's conclusions:—

1. For the sick-room, free ventilation, when it can be secured together with an even temperature, is all that can be required.
2. For rapid deodorization and disinfection, chlorine is the most effective agent known.
3. For steady and continuous effect, ozone is the best agent known.
4. In the absence of ozone, iodine exposed, in the solid form, to the air is the best.
5. For the deodorization and disinfection of fluid and semi-fluid substances undergoing decomposition, iodine is best.
6. For the deodorization and disinfection of solid bodies that cannot be destroyed, a mixture of powdered chloride of zinc or powdered sulphate of zinc, with sawdust, is best. After this, a mixture of carbolic acid and sawdust ranks next in order; and, following on that, wood-ashes.
7. For the deodorization and disinfection of infected articles of clothing, etc., exposure to heat at 212° Fahr. is the only true method.
8. For the deodorization and disinfection of substances that may be destroyed, heat to destruction is the true method.